

AMENDMENTS

In the Specification

Please amend the paragraph beginning on page 3, line 7 as follows:

It is well known for routers of messages (in a packet-switched network) to communicate with one another in accordance with the Open Shortest Path First ("OSPF") protocol, which is governed by a standard of the Internet Engineering Task Force ("IETF"). IETF document RFC 1583 ("IETF RFC 1583"), shown in Appendix G, describes OSPF Version 2 and is incorporated herein by reference in its entirety. IETF documents in general, including RFC 1583, are available at the IETF Internet web site, "www.ietf.org." In OSPF, messages containing information about the location of various routers and interconnections among the routers (also called "network topology") are sent by the routers to one another. Each router maintains and updates a database of network topology information retrieved from such messages, which are also called "Link State Advertisements" ("LSA"). Each router uses the network topology information to determine the shortest path from itself to all other routers in the network.

Please amend the paragraph beginning on page 6, line 27 as follows:

As shown in FIG. 1, a communications network 100 includes network elements 110A, 110B, 110C, and 110D. Communications links ("links") 120-123 physically couple the circuit switches included in each network element (also known as a "node"). Each network element in network 100 also includes a router for routing packets transmitted over links 120-123 via the circuit switches. Routers and circuit switches are well known. Network element 110A, which is representative of the network elements in network 100, may be of the same type as the model 454 HIGH-SPEED SONET/SDH transport system ("Model 454") from Cisco Systems, Inc. of San Jose, California. "Cerent 454 User Documentation," Release 1.0, Cerent Corporation (now Cisco Systems, Inc.) April 1999, shown in Appendix F, describes the Model 454 and is incorporated herein by reference in its entirety. Network element 110A may also be of the same type as the "nodes" described in commonly-owned U.S. Patent ~~Application~~ ~~Serial~~ No. ~~09/343,122~~ 6,657,969, "GENERATION OF DATA USED FOR NETWORK OPERATION,"

filed June 29, 1999, incorporated herein by reference in its entirety. The just referenced patent application is hereinafter referred to as the “referenced patent application.”

Please amend the paragraph beginning on page 8, line 1 as follows:

Timing Communications and Control Processor (“TCCP”) 340A provides the main processing function in NE 110A. In one embodiment, TCCP 340A is an MPH850 or MPH860 POWERPC™ processor from Motorola, Inc. (~~Internet web site “www.motorola.com”~~). Data received through one of the interfaces of interface cards 323A, 324A, and 325A are provided to a Data Communications Channel Processor (“DCCP”) 330A through a switch 322A. DCCP 330A provides communication processing functions such as processing of High-Level Data Link Control (“HDLC”) frames using its HDLC controller. DCCP 330A can be of the type MPC860 POWERPC™ processor from Motorola, Inc. A cross-connect (“XC”) card 301A switches network traffic from one interface to another interface within NE 110A. A random access memory (“RAM”) 350A provides memory storage. For example, a table containing information about interface 326A and other information relating to link 120 can be stored in RAM 350A. The just described portions of NE 110A are also present in the Model 454 and are also described in the above referenced patent application.

Please amend the paragraph beginning on page 8, line 24 as follows:

In one embodiment, communications links 120-123, shown in FIG. 1, conform to the SONET standard. SONET is well known and is described in the American National Standards Institute (“ANSI”) documents ANSI T1.105, ANSI T1.105.01, ANSI T1.105.02, ANSI T1.105.03, ANSI T1.105.04, ANSI T1.105.05, ANSI T1.105.06, ANSI T1.105.07, ANSI T1.105.08, and ANSI T1.105.09, all of which are available from ANSI (~~Internet web site “www.ansi.org”~~); see also, W. J. Goralski, “SONET: A guide to Synchronous Optical Networks,” McGraw-Hill 1997. All of the aforementioned SONET documents are incorporated herein by reference in their entirety.

Please amend the paragraph beginning on page 12, line 1 as follows:

For example, the third interface of an interface card in slot location 2 has an ENTITY INDEX of 2053 (i.e. $2 \times 1024 + 2 + 3$). Identifier 508, "NODE ID," is equal to the last 4 bytes of the Medium Access Control ("MAC") address of the network element containing the interface. A MAC address is a unique physical address issued by the Institute of Electrical and Electronics Engineers (IEEE), ~~Internet web site "www.ieee.org"~~. Identifiers 505-508 uniquely identify the interface (as opposed to the network element, router, or circuit switch) within a network. This allows the creation of a table describing a network's topology to a level of detail which includes the interfaces coupled by a link.

Please amend the paragraph beginning on page 15, line 35 as follows:

FIG. 2C shows a method for transmitting circuit information (step 220, FIG 2A) in one embodiment of the invention. Once IP is running on an operational link coupling two circuit switches, OSPF can then be run over IP (step 222, FIG. 2C). This is graphically illustrated in FIG. 6B wherein IP packet 630 encapsulates OSPF packet 620. Circuit information is transmitted to network elements using standard OSPF flooding mechanisms (step 224, FIG. 2C). In one embodiment, the OSPF protocol software is the TORNADO FOR MANAGED SWITCH™ software package from Wind River Systems, Inc. of Alameda, California (~~Internet web site "www.wrs.com"~~). Other OSPF protocol software can also be used.